Clinical Applications of Hypnotherapy In A Medical Setting

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Abstract

Since 1958, hypnosis has been recognized by the American Medical Association as a legitimate form of medical treatment when administered by an appropriately trained practitioner. With the prevalence of certification societies and international organizations, the specialty has increased its level of professionalism and clinical applications. However, in spite of increased exposure and utilization of this unique clinical application, its use within medical settings varies considerably. The purpose of this article is to provide an understanding of clinical hypnosis and offer clinical applications, with the goal of increasing its exposure and utilization within medical settings.

The Western medical approach has traditionally been oriented towards differential diagnosis, leading to surgical procedures and/or pharmacological curative agents. In the new Mind-Body paradigm, we now understand that "alternative" treatments can bring about symptomatic relief that is often equivalent, if not superior to drug outcomes. One such approach is hypnosis. With hypnosis, one can evoke physiologic changes that were once thought beyond voluntary control. For example, subjects have shown "voluntary control" over sympathetic tone, vasoconstriction/vasodilation, heart rate, muscle tension, and so forth. Hypnosis is similar to biofeedback, in that physiologic change is brought under a patient's voluntary control. In biofeedback, however, a patient is taught how to do this using external feedback of their physiologic systems, whereas in hypnosis, control over these physiologic processes are evoked from within the person.

Hypnotherapy Defined

According to the American Psychological Association Division of Psychological Hypnosis, hypnosis can be seen as a procedure during which changes in sensations, perceptions, thoughts, feelings, or behavior are suggested.[1,2] Kihlstrom[3] offered a much more specific understanding of hypnosis, asserting that hypnosis is a set of procedures in which a person designated as the hypnotist suggests that another person (the patient or subject) experience various changes in sensation, perception, cognition, or control over motor behavior. It has an induction phase and an application phase. Others have taken issue with the concept of a "trance state" and simply describe hypnosis as a heightened state of relaxation or a state of focused attention.[4] Finally, investigators from the "Stanford hypnosis research lab" have elucidated the commonalties of hypnosis with dissociation, a mental separation of components of experience that would ordinarily be processed together.[5,6]

A trance is associated with many physiologic changes to include: flattening of facial muscles, decrease in orienting movements, immobility, changes in blinking and swallowing, catalepsy in a limb, autonomous motor behavior, altered breathing and pulse, fixed gaze, faraway look, changed voice quality, time lag in response, literalism, perseveration in response, dissociation, relaxed muscles, amnesia, and time distortion.

During a hypnotic session, the patient is encouraged to focus on the hypnotherapist's voice, pleasant images and to fix his or her gaze in some particular manner. During this induction phase, the patient begins to enter a hypnotic trance, at which time the conscious mind becomes less and less vigilant to the immediate surroundings. When this conscious-unconscious mind dichotomy becomes more salient to the patient, the unconscious mind becomes more amenable to suggestions (which are congruent with the patient's belief system) for new possibilities from the hypnotherapist. The hypnotherapist serves as a guide, helping transport a patient from the normal awake state of consciousness to a state of hypnotic trance. Patients often describe trance as a pleasant, relaxed altered state of consciousness, and/or a type of reverie. This ability can be taught to the patient so that he or she can enter trance on his or her own and control distressing psycho-physiological symptoms.

Medical hypnosis, or hypnotherapy, is the clinical application of hypnosis to medical disorders/procedures. In 1955 the British Medial Association declared hypnosis as a legitimate form of medical treatment when applied by an appropriately trained practitioner, and in1958 the American Medical Association gave their formal endorsement as well. Health care professionals from a variety of disciplines can be trained to administer hypnosis. Information about training opportunities can be obtained by contacting the American Society of Clinical Hypnosis (www.asch.net), the Milton H. Erickson Foundation (www.erickson-foundation.org), the Society for Clinical and Experimental Hypnosis (www.sunsite.utk.edu), or Division 30 (Psychological Hypnosis) of the American Psychological Association (www.apa.org/divisions/div30). Hypnotic treatment will commonly involve 1-4 treatments, at a typical cost of approximately $125/session. The following discussion outlines some of the many possible clinical applications for medical hypnosis within a medical setting.

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Chronic Pain Applications

Chronic pain disorders (e.g., Complex Regional Pain Syndrome, Myofascial Pain Syndrome, Fibromyalgia, Chronic Pelvic Pain, Orchalgia, Failed Back Syndrome, etc.) have been shown to be very responsive to hypnotherapeutic treatment.[7,8] One component of the treatment mechanism is that in a hypnotic state, patients are often induced into a deep state of physiologic relaxation. This acts to decrease Sympathetic Nervous System arousal in the same manner as sympathiolytic medications (e.g., alpha-2 blockers) which are commonly prescribed for chronic pain symptoms. In spite of the data indicating the efficacy of hypnosis over and above relaxation strategies and simple placebo effects, some critics of hypnosis have mistakenly argued that a hypnotic trance is nothing more than a deeply relaxed state. While deep relaxation is a common component of hypnosis, hypnotic trance is not defined by limited to such a state. Research conducted at Stanford University[9] has revealed that patients can remain in a trance state even during Sympathetic hyperarousal (for example, when patients are pedaling on stationary exercise machines). Further, it is well established that patients often respond to direct suggestions for pain control[2] independent of sympathetic or parasympathetic arousal.

Hypnotic anesthesia and analgesia are typically central aspects of hypnotherapy for pain control. Using hypnosis, patients can be given suggestions to reduce and often eliminate particular sensory experiences, to include pain, by helping patients reinterpret their sensory experience. This can be demonstrated with both acute pain (e.g., placing a subject's hand in a bucket of ice and water), chronic pain that is related mostly to psychological factors, and chronic pain secondary to a medical condition.

Applications For Hyperemesis Gravidarum & Nausea Associated With Chemotherapy

Hypnotherapy is an effective treatment to control hyperemesis and nausea during pregnancy[10,11] as well as nausea associated with chemotherapy.[11] Patients can be provided with suggestions to relax their stomach and throat muscles causing their nausea, gagging, and vomiting to subside.

Applications In The Treatment of Motion Sickness

Hypnotherapy has been demonstrated as a successful treatment for motion sickness in an operational environment (in aircraft and submarines).[12] These authors highlighted the clinical utility of hypnotherapy in a military medical setting. In a military medical center the authors have successfully treated several patients suffering from exercise-induced nausea and vomiting with hypnotic suggestions designed to decrease muscle tension and nausea. In a similar manner, Jones and his colleagues[13] yielded positive findings with Air Force pilots suffering from airsickness.

Psychosomatic/Stress Disorders

Hypnosis can be a powerful mechanism in teaching patients to gain control of psychophysiologic functions, in particular, by decreasing hyper-sympathetic arousal. As such, hypnosis is effective in the treatment of migraines[14], tension headaches[15], irritable bowel syndrome[16], seasonal allergies[17], asthma[18], and a whole host of other stress-related disorders.

Dental Applications

A virtually ubiquitous problem treated both by dentists and chronic pain physicians is Temporomandibular disorder (TMD). Despite the typical treatment involving occlusional splint therapy, many patients brux through dental splints worn at night, as they clench and grind their teeth during sleep.

With this in mind, the first author has developed a group hypnotherapy TMD program at Tripler Army Medical Center. After an initial dental evaluation, patients referred for this treatment are given post hypnotic suggestions so that the tensing of the muscles around the Temporomandibular joint and any feelings of pain or discomfort in that area become cues for these muscles to immediately relax. This process of cued relaxation can occur at both a conscious and unconscious level. Thus far, the results have been very promising, with the average patient reporting 80% reduction in symptoms, without of course, side effects so common with most medications. [19]

The effectiveness of hypnotherapy in the treatment of temporomandibular disorders has been empirically demonstrated.[20] Further, Kent[21] has provided an in depth overview of clinical applications in a variety of dental disorders. More specifically, Scott[22] and Bills[23] offered data and information to suggest that hypnotherapy is effective with dental phobias.

Smoking Cessation

Our Behavioral Medicine Clinic commonly receives referrals for patients who would like to quit smoking cigarettes, but for various reasons, are seeking a treatment other than that offered by our formal cognitive-behavioral smoking cessation program, which entails using the nicotine patch or Buproprion combined with cognitive-behavioral strategies. The first author works with patients who, for example, seek hypnotherapeutic treatment to quit smoking, as they are well into pregnancy, and thus do not want to use a medication agent. These patients are given post-hypnotic suggestions for urge control, and for the induction of nausea immediately upon taking a puff, which immediately subsides at the moment of extinguishing the cigarette.

Many researchers, for example, Johnson and Karkut[24] have demonstrated the efficacy of hypnosis for smoking cessation. However, it has been suggested that hypnosis is effective for weight loss and smoking cessation in only approximately 25% of the cases, but for that 25% of people, a single-session treatment can produce complete long-term abstinence.[25] This low effectiveness is likely due to the challenges of any treatment for habit control.

Hypnotherapy For Weight Loss

As part of the LE^{3}AN program (an inpatient plus outpatient healthy lifestyle service to assist patients with weight loss), we offer a segment on hypnosis to help patients gain control over their habitual eating responses to stress. James, Folen, Garland, et al.[26] have employed bi-weekly hypnosis sessions to help patients manage stress as it relates to maladaptive eating behaviors. Rigorous meta-analytic studies have indicated a significant effect of adding hypnosis to cognitive-behavioral treatments for weight reduction.[27]

The Treatment of Phobias

Phobic individuals are typically more responsive to hypnotic treatment than less hypnotizable individuals.[28] These patients' phobic symptoms respond very well to hypnotic suggestions for symptom relief.[29] The first author successfully treated both a patient with a 50-year history of needle phobia, and a patient with a 30-year history of Gecko phobia by combining hypnosis with systematic desensitization and flooding techniques, respectively. Finally, Simon has recently documented the efficacy of novel hypnotic techniques for patients phobic of MRI equipment [30] and lumbar puncture procedures.[31]

Hypnotherapy for Uncomfortable Medical Procedures

Many patients, in particular pediatric patients, experience great distress from various medical procedures. Clinicians can work with parents, teaching them how to use hypnotic distraction techniques in helping their children through uncomfortable medical procedures such as lumbar punctures and bone marrow aspirations.[32] These children typically report a great decrease in anxiety, accompanied by a greater internal sense of control over the experience.

Labor & Delivery

Hypnosis is naturally amenable to applications for pain control with labor and delivery. Pregnant women are taught how to use eye fixation, dissociation, trance deepening strategies, and relaxation, and are given post-hypnotic suggestions for anesthesia and analgesia (to include hypnotic reframing of the pain signals and the labor and delivery process) for the labor and birth process. Women trained in the use of hypnosis report significantly lower ratings of both pain and anxiety.[33]

Coping With Trauma

Many professionals have used hypnosis for assisting patients to cope with a variety of traumas such as post traumatic stress disorder,[34] childhood trauma,[35] childhood sexual abuse,[36] rape,[37] and burns[38]. It should be underscored here that cases involving psychological trauma are best handled with a consult to a psychologist or psychiatrist.

Applications For Surgery

Surgery can be seen as a very traumatic event for many patients. For this reason, hypnotherapy is often employed. A recent well controlled study demonstrated that as compared with surgical patients taught basic stress reducing strategies, surgical patients who were hypnotized reported significantly lower ratings of peri- and post-operative anxiety and pain, a significant reduction in intraoperative requirements for sedating agents, a significant reduction in nausea and vomiting, better surgical conditions, less signs of patient discomfort and pain, significantly more stable vital signs, a greater sense of intraoperative control, and higher satisfaction scores. [39]

Limitations of Hypnosis

One of the major problems in the hypnosis/hypnotherapy community is that there is a discrete chasm between the clinicians and the more academically-oriented researchers.[40] Much of the research done by academicians is often not very clinically relevant, and much of the research conducted by clinicians is presented in the form of case studies, thus lacking the scientific rigor of well-controlled designs. There has been a call for greater integration between the two groups to produce well-constructed, clinically relevant research.[41]

Table 1. Clinical Applications of Medical Hypnosis (Hypnotherapy)

Application	Recent Empirical Study Demonstrating Treatment Efficacy
Asthma	Kohen & Wynne (1997)
Burns	Patterson et al. (1996)
Dental Disorders	Dworkin (1997)
Hyperemesis from Chemotherapy	Genuis (1995)
Hyperemesis Gravidarum	Tonem (1994); Simon & Schwartz (1999)
Irritable Bowel Syndrome	Houghton et al. (1996)
Labor and Delivery	Mairs (1995)
Migraines	Nolan et al. (1995)
Motion Sickness	James & Hanasym (1993)
MRI examinations	Simon (1999)
Pain Management	Barber (1996)
Phobias	Somerville & Jupp (1992)
Post Traumatic Stress Disorder	Spiegel (1996)
Seasonal Allergies	Madrid et al. (1995)
Smoking Cessation	Johnson & Karkut (1994)
Surgical Procedures	Faymonville et al. (1997)
Tension Headaches	Zilman et al. (1992)
Uncomfortable Medical Procedures	Simon & Cannonico (in press) Rape & Bush (1994)
Weight Management	Kirsch (1996)

While generalizations cannot be made from any single case study, the trend from the many case studies conducted over the past few decades suggest that hypnosis is an effective form of treatment for a variety of medical disorders. Further, meta-analytic studies provide more rigorous evidence of the efficacy of hypnotherapeutic treatment.[42] Hypnotherapy, by no means, should be thought of as a panacea. While there has been supportive evidence for its effectiveness in treating many of the disorders discussed in this article, the efficacy of hypnotherapy has not been convincingly demonstrated for a variety of other disorders, for example, ADHD[43] and alcohol/substance abuse.[44]

There is also some research that would suggest that a patient's level of hypnotizability plays an important role in determining outcome of therapeutic success,[45] although other studies indicate that this is often not the case.[46] This issue is of critical clinical importance, and future research should seek greater clarification. Another issue of significant clinical importance is that many patients fear undergoing hypnotic treatment because of the frightful distortions and fallacies they have witness on television, in the movies, or with stage hypnosis. It is our experience that hypnotherapy will fail if the myths and misconceptions of hypnosis are not discussed and dispelled prior to initiating treatment.

Discussion

The applications of hypnosis are varied and it would seem that hypnotherapy is a valuable adjunctive treatment option for many physicians to consider. The authors have worked collaboratively with physician providers over the past five years and have had considerable success using hypnotherapy interventions. Once their anxieties about hypnosis are alleviated, patients typically welcome a procedure that does not involve medication, is non-invasive, reduces physical pain (rather than causes more pain), and offers a mechanism to autonomously control pain or discomfort. Thus, it is the hope of the authors that the examples and information provided in this paper spark interest to expand the applications of medical hypnosis in medical settings.

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